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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,921	10/20/2003	Yao-Ching Su	025789-00010	8340

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ARENT FOX LLP
1050 CONNECTICUT AVENUE, N.W.
SUITE 400
WASHINGTON, DC 20036

EXAMINER	
BODDIE, WILLIAM	

ART UNIT	PAPER NUMBER
2629	

NOTIFICATION DATE	DELIVERY MODE
01/22/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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IPMatters@arentfox.com
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Office Action Summary	Application No.	Applicant(s)	
	10/687,921	SU ET AL.	
	Examiner	Art Unit	
	WILLIAM L. BODDIE	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,10,12,13 and 16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-5, 10, 12-13 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In an amendment dated, October 31st, 2008 the Applicants amended claims 10 and 16. Currently claims 1, 3-5, 10, 12-13 and 16 are pending.

Response to Arguments

2. Applicant's arguments filed October 31st, 2008 have been fully considered but they are not persuasive.

3. On pages 9-10 of the Remarks the Applicants traverse the rejection of the independent claims on the grounds that Sano does not teach a plurality of sustain electrodes having the same width as the barrier rib in the row direction or data electrodes that have a width equivalent to column barrier ribs.

The Examiner respectfully disagrees. It seems clear from figure 7 of Sano that the width of the data electrodes is indeed equivalent to the width of the barrier ribs. The horizontal sustain electrodes labeled as 13d by Sano are the sustain electrodes that are seen as "a plurality of sustain electrodes" that are "substantially the same width as the barrier rib in the row direction." While 13a in figure 7 of Sano is also considered a sustain electrode, it is not required by the current set of claims that every sustain electrode in the display panel be the same width as the barrier rib and aligned in a row direction. As such, the combination of Kosaka with Sano is seen as sufficient to disclose the limitation requiring a plurality of sustain electrodes that are the same width as a row barrier rib.

Additionally, the proposed combination of Kosaka and Sano is merely to resize the electrodes of Kosaka as taught by Sano. Kosaka does not teach any vertical

sustain electrodes. The combination is not to incorporate the vertical sustain electrodes of Sano into Kosaka, but rather to merely resize the width of the electrodes already present in Kosaka.

4. On page 10 of the Remarks, the Applicants argue that Kosaka teaches away from reducing the width of sustain electrodes by disclosing that the display is brighter due to the wide electrode width.

While Kosaka does state wide electrodes result in a greater luminance this is not seen to constitute a teaching away such disclosure does not criticize, discredit, or otherwise discourage the solution claimed. Kosaka does not attack narrow width sustain electrodes, but merely proposes an added benefit of wide electrodes. Kosaka also continues after discussing an advantage of wide electrodes to solve undesirable discharge problems associated with the electrode design. Furthermore Sano discloses that luminance is increased as a direct result of the narrow width of the electrodes (col. 18, lines 64-66). In short, the Examiner does not feel that one of ordinary skill in the art would be lead away from the invention as currently claimed.

As shown above the rejections are seen as sufficient and are thus maintained.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3-5, 10, 12-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosaka (US 6,727,869) in view of Sano et al. (US 7,002,296) and further in view of Kim (US 7,067,977).

With respect to claims 1 and 3, Kosaka discloses, a plasma display panel with barrier ribs (29 and 19 in fig. 8) configured in a closed shape (rectangle in fig. 8) comprising:

a plurality of sub-pixel cells (28'-1 for example in fig. 8) each having a cell area defined by said closed shape barrier ribs (clear from fig. 8);

a plurality of said sub-pixels cells in a delta configuration defining a color pixel (col. 11, lines 5-7);

a plurality of sustain electrodes each space apart in a row direction at a predetermined cell length (X1-3 and Y1-3 in fig. 8);

a plurality of data electrodes (A1, A3 in fig. 8) overlapping a wall of said barrier ribs in a column direction (29 in fig. 8), each of said data electrodes extending under said cell area (clear from fig. 11), wherein each data electrode substantially aligns with a barrier rib in the column direction (29 in fig. 8); and wherein

a dual scan gap (clear from fig. 12) of predetermined gap length is formed between a pair of said data electrodes (A1, A3 in fig. 8) in the column direction and at least partially overlapping the barrier ribs in a column direction (clear from fig. 8), and

a gap is formed between said barrier ribs in a row direction and said data electrodes (clear from figs. 8 and 12).

Kosaka does not expressly disclose that the gap is less than 40% of the cell length.

Based on figure 12, it is clear that Kosaka intended that the alternating protrusions of the data electrodes continue from one half of the panel to the other. With this in mind, we turn to figure 8, where when the data electrodes are split it should be clear that there would be a gap between the row ribs, 19, and the data electrode. Unless an entire row of pixels is to be lost, the gap will be less than 40% of the cell length. See the below annotated figure for further explanation.

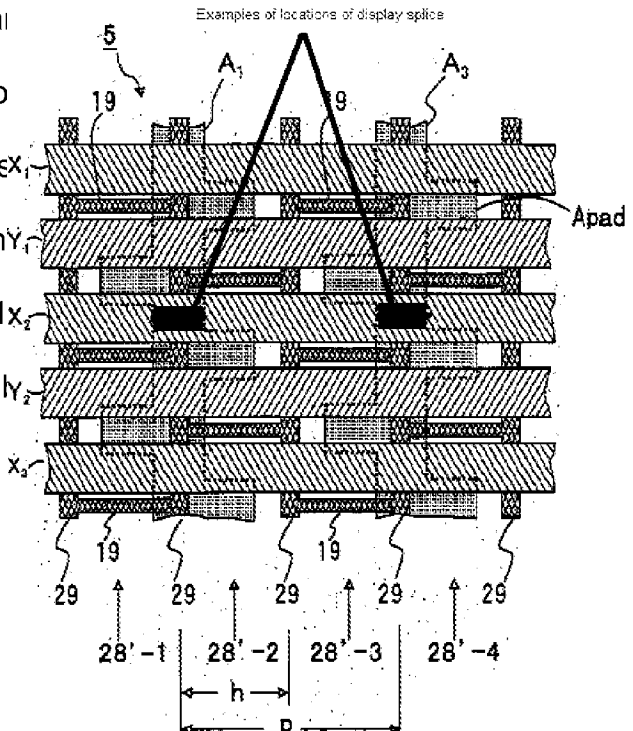
Therefore it would have been obvious to one of ordinary skill in the art to make the display splice in a manner to ensure that the gap between a rib and data electrode is minimized to ensure proper discharge of the last pixel that the data electrode is present in. Thus the decision to design the plasma panel so as to achieve a gap of less than 40% is seen as an optimum range that would have been obvious to one of ordinary skill in the art at the time of the invention.

Kosaka does a electrode and the sustain electrode a rib in the column direction and the ro

Sano disclos e) with barrier ribs (16 in fig. 7) configured in g:

each data (1 is substantially the same width as the ear from fig. 7), respectively.

FIG. 8



Sano and Kosaka are analogous art because they are both from the same field of endeavor namely plasma display panel electrode design.

At the time of the invention it would have been obvious to one of ordinary skill in the art to size the electrodes of Kosaka as taught by Sano for the well-known benefit of reducing crosstalk and to increase the luminance of the display (Sano; col. 18, lines 64-66).

Neither Sano nor Kosaka expressly disclose wherein each sustain electrode substantially aligns with a barrier rib in a row direction.

Kim discloses a plasma display panel (fig. 4; for example) comprising:

a plurality of sustain electrodes (Y1-Yn; Z1-Zn in fig. 7), wherein each sustain electrode substantially aligns with a barrier rib (50a in fig. 7) in a row direction.

Kim, Sano and Kosaka are analogous art because they are both from the same field of endeavor namely plasma display panel electrode design.

At the time of the invention it would have been obvious to one of ordinary skill in the art to align the sustain electrodes, of Kosaka and Sano as taught by Kim, to increase the luminance of the display, by decreasing the amount of electrode blocking the cell.

With respect to claim 4, Kosaka, Sano and Kim disclose, the panel of claim 1 (see above).

Kosaka further discloses, wherein said gap length is smaller than said cell length (see above) and said dual scan gap crosses over one of said barrier ribs in a row direction (clear from figs. 8 and 13).

With respect to claim 5, Kosaka, Sano and Kim disclose, the panel of claim 1 (see above).

Kosaka further discloses, wherein said data electrodes have an expanded portion in said cell area (clear from figs. 8 and 11).

With respect to claims 10, 12-13, these claims are seen as merely method versions of the above rejected claims 1 and 3-4 respectively. As such they are rejected on the same merits shown above in the rejection of claims 1 and 3-4.

With respect to claim 16, Kosaka discloses, a plasma display panel with barrier ribs (29 and 19 in fig. 8) configured in a closed shape (rectangle in fig. 8) comprising:

a plurality of sub-pixel cells (28'-1 for example in fig. 8) each having a cell area defined by said closed shape barrier ribs (clear from fig. 8);

a plurality of said sub-pixels cells in a delta configuration defining a color pixel (col. 11, lines 5-7);

a plurality of sustain electrodes each space apart in a row direction at a predetermined cell length (X1-3 and Y1-3 in fig. 8);

a plurality of data electrode pairs each spaced apart in a column direction (1, A3 in fig. 8), wherein each data electrode substantially aligns with a barrier rib in a column direction (29 in fig. 8);

a dual scan gap (clear from fig. 12) of predetermined gap length is formed between a pair of said data electrodes (A1, A3 in fig. 8) in the column direction and said dual scan gap crosses under said barrier ribs in a row direction (clear from fig. 12).

Kosaka does not expressly disclose wherein the sustain electrode is substantially the same width as the barrier rib in the row direction or the column direction.

Sano discloses a plasma display panel (fig. 4; for example) with barrier ribs (16 in fig. 7) configured in a closed shape (rectangle in fig. 7) comprising:

each data (14 in fig. 7) and sustain (13 in fig. 7) electrode is substantially the same width as the barrier rib in the column and row direction (clear from fig. 7), respectively.

Sano and Kosaka are analogous art because they are both from the same field of endeavor namely plasma display panel electrode design.

At the time of the invention it would have been obvious to one of ordinary skill in the art to size the electrodes of Kosaka as taught by Sano for the well-known benefit of reducing crosstalk and to increase the luminance of the display (Sano; col. 18, lines 64-66).

Neither Sano nor Kosaka expressly disclose wherein each sustain electrode substantially aligns with a barrier rib in a row direction.

Kim discloses a plasma display panel (fig. 4; for example) comprising:

a plurality of sustain electrodes (Y1-Yn; Z1-Zn in fig. 7), wherein each sustain electrode substantially aligns with a barrier rib (50a in fig. 7) in a row direction.

Kim, Sano and Kosaka are analogous art because they are both from the same field of endeavor namely plasma display panel electrode design.

At the time of the invention it would have been obvious to one of ordinary skill in the art to align the sustain electrodes, of Kosaka and Sano as taught by Kim, to

increase the luminance of the display, by decreasing the amount of electrode blocking the cell.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM L. BODDIE whose telephone number is (571)272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629

/William L Boddie/
Examiner, Art Unit 2629
1/16/09